CLAIMS

What is claimed is:

1. A circuit for receiving an input signal and providing an output signal comprising:

a first circuit branch including a first amplifying element for amplifying the input signal when the frequency is below a pre-determined frequency; and

a second circuit branch connected in parallel with said first circuit branch and including a second amplifying element for amplifying the input signal when the frequency is above a pre-determined frequency.

2. A circuit as in Claim 1 wherein the first amplifying element comprises a Class D amplifier.

3. A circuit as in Claim 1 wherein the second amplifying element comprises an amplifier selected from the group consisting of Class A, Class B and Class AB amplifier.

4. A circuit as in Claim 2 wherein the second amplifying element comprises an amplifier selected from the group consisting of Class A, Class B and Class AB amplifier.

5. A circuit as in Claim 3 further comprising a power controller connected to the Class D amplifier to control the power supplied to the Class D amplifier.

6. A circuit as in Claim 1, wherein the second circuit branch includes a high pass filter.

7. A circuit as in Claim 7, wherein the high pass filter comprises a capacitor.

8. A circuit as in Claim 1 wherein the first branch comprises a low pass filter.

9. A circuit as in Claim 9, wherein the low pass filter comprises an inductor.

10. A circuit as in Claim 7, wherein the first branch comprises a low pass filter.

11. A circuit as in Claim 11, wherein the low pass filter comprises an inductor.

12. A circuit as in Claim 1, wherein a feedback signal corresponding to the sum of a signal produced by the first circuit branch and a signal produced by the second circuit branch is mixed with the input signal.

13. A circuit as in Claim 4 wherein the input signal comprises a horizontal deflection signal for a cathode ray tube.

14. A circuit as in Claim 4 wherein the input signal comprises a vertical deflection signal for a cathode ray tube.

15. A circuit as claimed in claim 1, wherein said second amplifying element of said second circuit branch has a cut-off frequency, and wherein said cut-off frequency may be adjusted.

16. A circuit as claimed in claim 1, wherein said cut-off frequency may be variably adjusted.

17. A method of amplifying an electric signal comprising:

amplifying the electric signal predominantly using a first amplifying element when the frequency of the signal is below a pre-determined frequency; and

amplifying the electric signal predominantly using a second amplifying element when the frequency of the signal is above the pre-determined frequency.

18. The method of Claim 17 wherein the first amplifying element comprises a Class D amplifier.

19. The method of Claim 17 wherein the second amplifying element includes an amplifier selected from the group consisting of Class A, Class B and Class AB amplifier.

20. The method of Claim 18 wherein the second amplifying element includes an amplifier selected from the group consisting of Class A, Class B and Class AB amplifier.

21. The method of Claim 20 wherein the electric signal includes a horizontal deflection signal in a cathode ray tube.

22. The method of Claim 20 wherein the electric signal includes a vertical deflection signal in a cathode ray tube.

23. The method of claim 17, further comprising:

adding to the electric signal a second electric signal corresponding to the sum of the signals produced by the first and second amplifying elements.

24. A circuit for receiving an input signal and providing an output signal comprising:

a first circuit branch including a first amplifying element; and

a second circuit branch connected in parallel with said first circuit branch and including a second amplifying element,

wherein said input signal passes predominantly through said first amplifying element if the frequency of the input signal is below a pre-determined frequency and wherein said input signal passes predominantly through said second amplifying element if the frequency of the input signal is above said pre-determined frequency.

25. Apparatus for supplying substantially constant voltage substantially irrespective of the current sourced or sinked within an operating range of power to a load comprising:

a voltage source to provide a voltage between first and second terminals;

a pulse width modulation controller connected to receive at least a portion of the voltage between the first and second terminals of said voltage source and to produce an output;

an inductor having a first terminal connected to the output of the pulse width modulation controller and a second terminal connected to ground;

a first capacitor connected between the first terminal of the voltage source and ground; and

a second capacitor connected between the second terminal of the voltage source and ground,

wherein the voltage between the first terminal of the voltage source and ground is substantially constant.

26. Apparatus in claim 25, wherein the voltage between the first terminal of the voltage source and ground is adapted to supply power to a class D amplifier.

27. Apparatus in claim 26, wherein the voltage between the second terminal of the voltage source and ground is adapted to supply power to a class D amplifier.

28. A circuit as in claim 7, wherein the power controller comprises:

a voltage source to provide a voltage between first and second terminals;

a pulse width modulation controller connected to receive at least a portion of the voltage between said first and second terminals of said voltage source and to produce an output;

an inductor having a first terminal connected to the output of the pulse width modulation controller and a second terminal connected to ground;

a first capacitor connected between the first terminal of the voltage source and ground; and

a second capacitor connected between the second terminal of the voltage source and ground, wherein the class D amplifier is supplied with voltage between the first terminal of the voltage source and ground.

29. A circuit as in claim 28, wherein the class D amplifier is supplied with voltage between the second terminal of the voltage source and ground.